

155032

Thursday, January 05, 2017 11:51:01 AM

N900040100

Setup Start *NS1*

Stop ***NS2***

1

Cust Item ID:

1

Customer:

Run Start *NR1*

Date: JAN 06 2017
Date:

Stop *NR2*

Date: JAN 06 2017 SPC (Y/N):

Date: _____

[illegible]



Work Order update only

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. _____		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date :		Step #:			QTY Effective :			MRB (QSI042) Approval	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process								
Misidentified ☐	☐ Past Due	OTHER :							

Work Order ID 155032

Thursday, January 05, 2017 11:51:01 AM

155032

Page 2

Item ID: 646.4002**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Stop *NS2*****Item Name:** AS350 Wiper Deflector**Start Date:** 1/30/2017 **Start Qty:** 1.00 ***1*****Cust Item ID:****Required Date:** 2/6/2017 **Req'd Qty:** 1.00 ***1*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start *NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 646.4002 Location : FG102								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

DAS
27
9-89DAS
28
9-89

FEB 23 2017

DAS
21
9-89

FEB 23 2017

DAS
21
9-89

FEB 23 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

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Page 1

Work Order ID: 155032

155032

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 1/30/2017

Required Date: 2/6/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.12.23 NEW ISSUE DD VERF:JLM
16.01.07 DWG REV.C DD VERF:JLM

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.3410 *646 3410* LH Wiper Deflector		Manufactured	No				Each	22.0000	**	1		JAN 3 1 2017	DAS 27 9-89 6 9-89
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				cck010				22					
				125083				13					
				97822				9					
646.3411 *646 3411* RH Wiper Deflector		Manufactured	No				Each	20.0000	**	1		JAN 3 1 2017	DAS 27 9-89 6 9-89
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				cck010				20					
				125083				10					
				97823				10					
NAS1149F0332P *NAS1149F0332P* Washer		Purchased	No				Each	2,810.000	**	16		JAN 3 1 2017	DAS 27 9-89 6 9-89
				<u>Location</u>				<u>Loc Qty</u>	<u>Loc Code</u>				
				GA				343					
				m133709				343					
				ST260a				1800					
				m136442				1800					
				ST262				667					
				m135948				667					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																	
OTHER : _____																									

Picklist Print

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Page 2

Work Order ID: 155032

155032

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 1/30/2017

Required Date: 2/6/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

Each

1,763.000

6

MS21042L3

Nut

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

100

m135945

100

GA

162

m134360

108

m135135

54

ST303

1501

M136044

401

M136192

600

M136406

500

JAN 31 2017

DAS
6
9-89

DAS
27
9-89

MS27039-1-19

Purchased

No

Each

190.0000

2

MS27039-1-19

Screw

DA
28
9-89

Location

Loc Qty

Loc Code

GA

80

m134134

80

ST280

110

m136182

110

JAN 31 2017

DAS
6
9-89

DAS
27
9-89

MS27039-1-18

Purchased

No

Each

1,657.000

2

MS27039-1-18

Screw

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

245

123522

45

124326

200

over006

1200

124326

1200

ST280

212

124326

212

JAN 31 2017

DAS
6
9-89

DAS
27
9-89

Thursday, January 05, 2017 11:51:00 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

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Page 3

Work Order ID: 155032

155032

Parent Item: 646.4002

646 4002

Parent Item Name: AS350 Wiper Deflector

Start Date: 1/30/2017

Required Date: 2/6/2017

Start Qty: 1.00

Required Qty: 1.00

646.3814 Manufactured No

Each 8.0000

646 3814

Wiper Bracket

DAS
28
9-89

Location

CCK106

Loc Qty

8

Loc Code

**

JAN 31 2017

DAS
27
6 9-89

600.1012 Purchased No

Each 7.0000

600 1012

Sealant PR1425B2 (#654 sem)

DAS
28
9-89

Location

cck017

Loc Qty

7

Loc Code

**

JAN 31 2017

DAS
27
6 9-89

MS24694-S53 Purchased No

Each 261.0000

MS24694-S53

SCREW

DAS
28
9-89

Location

ST284

Loc Qty

261

Loc Code

**

JAN 31 2017

DAS
27
6 9-89

Thursday, January 05, 2017 11:51:00 AM

Shop Packet Print

Page 3

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____							



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.		05304		SHEET 1 OF 1					
DWG NO.	646.4000	REV:	C	PREPARED BY	J. BECKER	DATE:	02/04/16	EFFECT ON DWG ☐ INC. ☒ UNINC.	
DWG TITLE: AS350 CABLE CUTTERS KIT									
APPROVED BY:		ENGR	MFG		QC	EFF. NEXT ORDER			
TRANSACTION CODES (TC): A-ADD R-REVISE		REASON: REVISED F/N 12.						ECR: N/A	

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 155 032 MJS
17-01-06

SHEET 1, BOM IS:

12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N	NTC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED: ☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM							
CHANGE CATEGORY				DER REVIEW REQUIRED			
☐ MAJOR ☒ MINOR				☐ YES ☒ NO			

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPRESS WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

NOTES:

1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

2 INSTALL F/N 14 WITH F/N 52 & 53.

A 3 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651.

4 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

5 REUSE FASTENERS FROM F/N 1.

6 USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

7 AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

8 INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

B 9 NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

5	5	5	78	601.3875	SCREW	MS27039-1-17	
1	1	1	77	646.9410	SHIM	AN3-14	
	4	4	76	601.2764	WASHER	MS27039-1-17	
	2	2	75	601.2973	LOCKNUT	MS27039-1-17	
	2	2	74	601.2988	SCREW	MS27039-1-17	
	2	2	73	601.2943	LOCKNUT	MS27039-1-17	
	2	2	72	601.3128	NUT	AN3-16	
	2	2	71	601.3209	LOCKNUT	MS27039-1-17	
	4	4	70	601.2638	WASHER	MS27039-1-17	
	2	2	69	601.2669	BOLT	AN3-16	
	2	2	68	601.3119	CLEVIS	AN3-16	
	2	2	67	601.3121	EYE BOLT	AN3-16	
	2	2	66	650.9201	EYE BRACKET ASSY	AN3-16	
	REF	REF	65	647.5701	GPS MOUNT KIT	AN3-16	
		2	64	601.3151	WASHER	MS27039-1-17	
		2	63	601.2911	SCREW	MS27039-1-17	
	24	24	62	601.2637	SCREW	MS27039-1-17	
2	2	2	61	601.2763	BOLT	AN3-12A	
	1	1	60	646.3913	SHIM		
	4	4	59	646.3912	SHIM		
	1	1	58	646.3911	SHIM		
	4	4	57	646.3910	SHIM		
	5	5	56	600.1013	PRIMER		
	8 FT	8 FT	55	600.0129	VHB TAPE		
	1	1	54	600.1012	SEALANT	MS27039-1-17	
	1	1	53	600.0991	MAGNABOND 6398 PART B		
	1	1	52	600.0990	MAGNABOND 6398 PART A		
6	10	10	51	601.2826	BOLT	AN3-11A	
		2	50	646.3814	WIPER BRACKET		
		2	49	601.2910	SCREW	MS27039-1-18	
	2	2	48	601.1365	SCREW	MS27039-1-10	
	2	2	47	646.3719	DOUBLER		
	2	2	46	646.3718	CUSTOM WASHER		
	1	1	45	646.3717	DOUBLER		
	22	2	44	601.1948	SCREW	MS27039-1-19	
	2	2	43	601.1952	SCREW	MS27039-1-20	
	4	4	42	601.1956	SCREW	MS27039-1-21	
4006	4003	4004	4003	4002	4001	FIND #	
						PART #	
						DESCRIPTION	
						MATL	
						SPEC.	

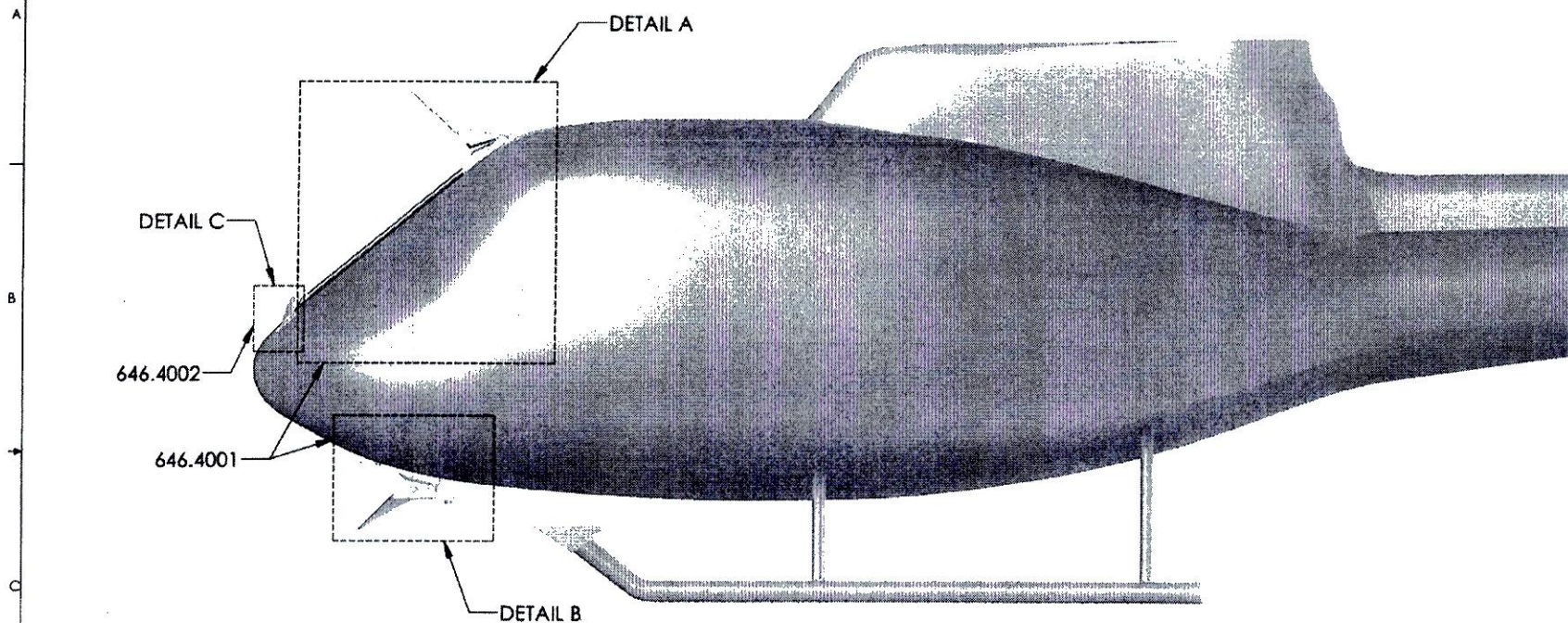
REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 02199, 02361, 02719 & 02745	02/08/2010	P. BRAYO
B	MODIFIED ECN 02046, 02079 & 04701	11/24/2014	P. BRAYO
C	INCORPORATED ECN 02095	08/04/2015	P. BRAYO

		2	2	41	601.2829	SCREW	MS24654554
		2	2	40	601.2831	RIVET	MS20426AD5-7
		1	1	39	646.3716	GAUGE BRACKET	
		6	6	38	601.1953	SCREW	MS27039-1-17
		2	2	37	646.3715	STRUT DOUBLER	
	2	2	2	36	601.2824	BOLT	AN3-5A
12	36		36	35	601.2277	RIVET	OC92465-9-02
6	18		18	34	600.0795	NUTPLATE	MS27047-3
3	3		3	33	601.2565	RIVET	MS20470AD5-7
1	1		1	32	646.3813	STRUT BRACKET	
4	4		4	31	601.2822	BOLT	AN3-3A
2	2		2	30	646.3812	GUSSET BRACKET	
8	8		8	29	601.2564	RIVET	MS20470AD5-6
1	1		1	28	646.3714	GUSSET	
	1	1	1	27	646.3610	FILLER	
	3	3	3	26	601.2830	SCREW	MS24654555
	2	2	2	25	601.2825	BOLT	AN3-6A
	1	1	1	24	646.3811	RADIUS BLOCK	
	1	1	1	23	646.3712	CLIP	
	1	1	1	22	646.3711	CLIP	
8	8		8	21	601.2832	RIVET	MS20470AD5-5
14	14		14	20	601.2020	RIVET	CR3215-5-3
4	6	6	10	19	601.2823	BOLT	AN3-4A
	1	1	1	18	601.2827	BOLT	AN3-13A
	5	5	5	17	601.2912	SCREW	MS24654551
1	1		1	16	646.3713	GUSSET	
1	1		1	15	646.3210	SUPPORT	
	1		1	14	646.3710	DOUBLER	
	1	1	1	13	646.3110	CHANNEL	
14	10	8	53	6	601.1624	LOCKNUT	MS27042L3
16	32	18	120	16	601.1607	WASHER	MS27042L3
			1	10	646.3410	LH WIPER DEFLECTOR	
			1	9	646.3411	RH WIPER DEFLECTOR	
		2	2	8	647.7703	STRUT ASSY	
		2	2	7	647.0112	STRUT BRACKET	
	1	1	1	6	646.3511	STRUT	
	1	1	1	5	646.3510	STRUT	
2	2		2	4	646.3810	BRACKET	
		1	1	3	646.2910	DEFLECTOR	
	1	1	1	2	646.3001	LOWER CUTTER ASSY	
		1	1	1	646.3301	UPPER CUTTER ASSY	
X					646.4006	LOWER CUTTER FIXED PROVISIONS	
	X				646.4005	LOWER CUTTER REMOVABLE PROVISIONS	
		X			646.4004	FIXED PROVISIONS KIT	
			X		646.4003	CABLE CUTTERS EX WITHOUT FIXED PROVISIONS	
			X		646.4002	AS350 WIPER DEFLECTOR KIT	
			X		646.4001	AS350 CABLE CUTTERS KIT	
4006	4003	4004	4003	4002	4001	FIND #	
						PART #	
						DESCRIPTION	
						MATL	
						SPEC.	

QTY		NEXT ASSY (S)		CHECK DATE INSPECTOR DATE CHECKER DATE DRAWING APPROVAL P. BRAYO CONTRACT NO.		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES 1/16" MIN. SPACING 1/16" MIN. SPACING 1/16" MIN. SPACING 1/16" MIN. SPACING		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300 DART AEROSPACE ARCHITECTURAL INC. 600 DART AEROSPACE	
SCALE NONE				SHEET 1 OF 5				646.4000	

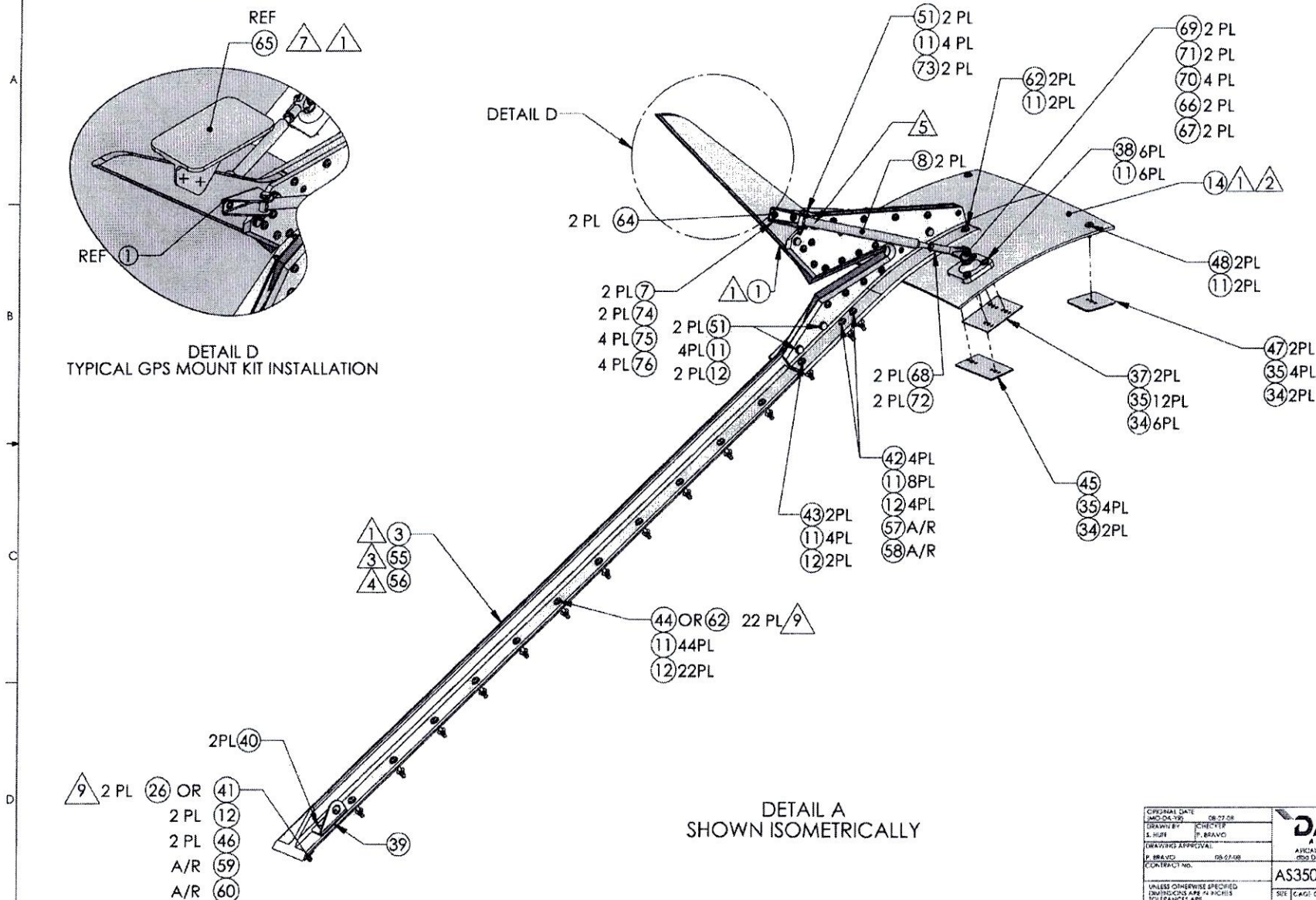
1 2 3 4 5 6 7 8

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ORIGINAL DATE 06-27-08		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY S. HUFF		CHECKED BY P. BRAVO	
DRAWING APPROVAL 06-27-08		APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±0.10 3 PLACE DECIMALS ±0.005 ANGLES ±.5°			
REV	DATE	QTY	REV
B	07/12/08	646.4000	C
SCALE NONE			SHEET 2 OF 5

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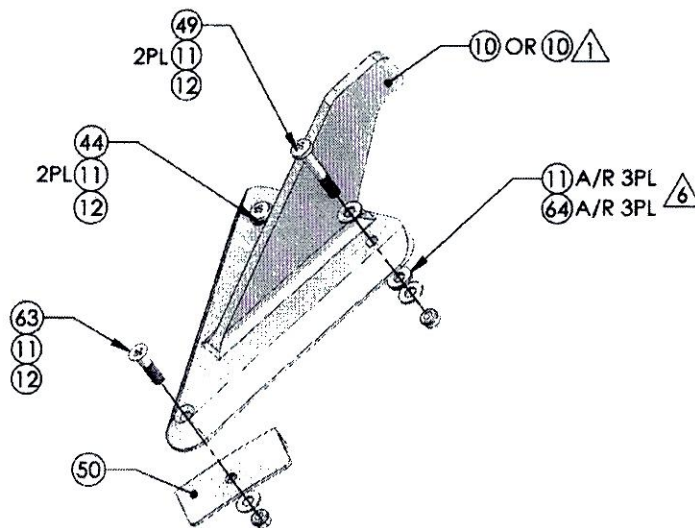
ORIGINAL DATE JAN 06 1998	08 27 08	 DART AEROSPACE 3030 ENTERPRISE CT SUITE A VISTA, CA 92081 (760) 724-5300	
DRAWN BY S. HUFF	P. BRAVO		
DESIGNER APPROVAL P. BRAVO	08 27 08		
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.1°		AS500 CABLE CUTTERS KIT	
SHEET B	CAGE CODE 07M26	DWG. NO. 646.4000	REV. C
SCALE NONE		SHEET 3 OF 5	

DART 3030 ENTERPRISE CT.
AEROSPACE SUITE A
VISTA, CA 92081
APICAL INDUSTRIES, INC.
(760) 724-5300

AS350 CABLE CUTTERS KIT

1 2 3 4 5 6 7 8

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DETAIL C
LH SHOWN EXPLODED
RH OPPOSITE

ORIGINAL DATE 08-27-09		3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY S. HUNT	CHECKED P. BRAVO	DART AEROSPACE APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWING APPROVAL P. BRAVO 08-27-09			
CONTRACT NO.		AS350 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS .010 2 PLACE DECIMALS .005 ANGLES .5°		QTY 8	CASH CODE 07M26
		DWO NO 646.4000	REV C
		SCALE NONE	SHEET 5 OF 5

REFERENCE ONLY

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NOTES:

- AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

- 2 INSTALL F/N 14 WITH F/N 52 & 53.

- 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMASTER-CARR P/N 75935A651.

- 4 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

-  REUSE FASTENERS FROM F/N 1.

- USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

- 7 AT CUSTOMERS OPTION; INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

- B** INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

- 9 NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(s)

05304

5	5	5	78	601.3875	SCREW	PN1475327A	△			
1	1	1	77	646.9410	SHIM		△			
	4	4	76	601.2764	WASHER	NAS1149P0832P				
	2	2	75	601.2973	LOCKNUT	MS21042-08				
	2	2	74	601.2988	SCREW	MS27039-0813				
	2	2	73	601.2943	LOCKNUT	MS21042-3				
	2	2	72	601.3128	NUT	AN316C4R				
	2	2	71	601.3209	LOCKNUT	MS21042.1				
	4	4	70	601.2638	WASHER	NAS1149P0432P				
	2	2	69	601.2669	BOLT	AN4C7A				
	2	2	68	601.3119	CLEVIS	AN665-34P				
	2	2	67	601.3121	EYE BOLT	AN66-5A				
	2	2	66	650.9201	EYE BRACKET ASSY					
	REF	REF	65	647.5701	GPS MOUNT KIT		△			
		2	64	601.3151	WASHER	NAS1149P0363P				
		2	63	601.2911	SCREW	MS246P4553				
		24	62	601.2637	SCREW	MS27039-1-16				
2	2	2	61	601.2763	BOLT	AN3-12A				
	1	1	60	646.3913	SHIM					
	4	4	59	646.3912	SHIM					
	1	1	58	646.3911	SHIM					
	4	4	57	646.3910	SHIM					
	5	5	56	600.1013	PRIMER					
	8 FT	8 FT	55	600.0129	VHB TAPE					
	1	1	54	600.1012	SEALANT	PP-1475 CLASS B				
	1	1	53	600.0991	MAGNORBOND 6398 PART B		△			
	1	1	52	600.0990	MAGNORBOND 6398 PART A		△			
6	10	10	51	601.2826	BOLT	A143-11A				
		2	50	646.3814	WIPER BRACKET					
		2	49	601.2910	SCREW	MS27039-1-16				
	2	2	48	601.1365	SCREW	MS27039-1-10				
	2	2	47	646.3719	DOUBLER					
	2	2	46	646.3718	CUSTOM WASHER					
	1	1	45	646.3717	DOUBLER					
	22	2	44	601.1948	SCREW	MS27039-1-19				
	2	2	43	601.1952	SCREW	MS27039-1-50				
	4	4	42	601.1956	SCREW	MS27039-1-21				
4006	4005	4004	4003	4002	4001	FIND #	PART #	DESCRIPTION	MATL	SPEC.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECNS 02199, 02351, 02718 & 02745	02/08/2010	P. BRAVO
B	INCORPORATED ECN 03046, 03079 & 04737	11/04/2014	P. BRAVO
C	INCORPORATED ECN 05098	09/09/2015	P. BRAVO

				2		2	41	601.2829	SCREW	MS2469-454	
				2		2	40	601.2831	RIVET	MS20426ADS-7	
				1		1	39	646.3716	GAUGE BRACKET		
				6		6	38	601.1953	SCREW	MS2703P-1-12	
			2			2	37	646.3715	STRUT DOUBLER		
		2		2		2	36	601.2824	BOLT	AN2-5A	
12		36				36	35	601.2277	RIVET	CC-82545-0-09	
6		18				18	34	600.0795	NUTPLATE	MS21047-3	
3		3				3	33	601.2565	RIVET	MS20470ADS-7	
1		1				1	32	646.3813	STRUT BRACKET		
4		4				4	31	601.2822	BOLT	AN2-3A	
2		2				2	30	646.3812	GUSSET BRACKET		
8		8				8	29	601.2564	RIVET	MS20470ADS-6	
1		1				1	28	646.3714	GUSSET		
		1		1		1	27	646.3610	FILLER		
		3		3		3	26	601.2830	SCREW	MS2469-455	
		2		2		2	25	601.2825	BOLT	AN2-6A	
		1		1		1	24	646.3811	RADIUS BLOCK		
		1		1		1	23	646.3712	CLIP		
		1		1		1	22	646.3711	CLIP		
8		8				8	21	601.2832	RIVET	MS20470ADS-6.5	
14		14				14	20	601.2020	RIVET	CR3213-5-3	
4		6		4		6	10	19	601.2823	BOLT	AN2-4A
		1		1		1	18	601.2827	BOLT	AN2-73A	
		5		5		5	17	601.2912	SCREW	MS2469-451	
1		1				1	16	646.3713	GUSSET		
1		1				1	15	646.3210	SUPPORT		
		1				1	14	646.3710	DOUBLER		
		1		1		1	13	646.3110	CHANNEL		
14	10	8	53	6	61	12	601.1624	LOCKNUT	MS21042L3		
16	32	18	120	16	144	11	601.1607	WASHER	NAST11PH823P		
				1		10	646.3410	LH WIPER DEFLECTOR			
				1		9	646.3411	RH WIPER DEFLECTOR			
				2		8	647.7703	STRUT ASSY			
				2		7	647.0112	STRUT BRACKET			
		1		1		6	646.3511	STRUT			
		1		1		5	646.3510	STRUT			
2		2				2	4	646.3810	BRACKET		
				1		3	646.2910	DEFLECTOR			
		1		1		2	646.3001	LOWER CUTTER ASSY			
				1		1	646.3301	UPPER CUTTER ASSY			
X							646.4006	LOWER CUTTER FIXED PROVISIONS			
	X						646.4005	LOWER CUTTER REMOVABLE PROVISIONS			
		X					646.4004	FIXED PROVISIONS KIT			
			X				646.4003	CABLE CUTTERS #4 WITHOUT FIXED PROVISIONS			
				X			646.4002	ASS300 WIPER DEFLECTOR KIT			
					X		646.4001	ASS300 CABLE CUTTERS KIT			
AD06	AD05	AD04	AD03	AD02	AD01	FIND #	PART #	DESCRIPTION	MAT1	SPEC.	

QTY		PARTS LIST			
NEXT ASSY (5)		ORIGINAL DATE: 02/01/98 DESIGNED BY: J. TORRES S. WUFF DRAWING APPROVALS: DRAWN BY: J. TORRES CHECKED BY: NO		DART AEROSPACE AFICAL INDUSTRIES INC. 3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1. HOLE DIMENSIONS: ±.001 2. HOLE DIMENSIONS: ±.005 3. HOLE DIMENSIONS: ±.010 4. HOLE DIMENSIONS: ±.015		SIZE	AS350 CABLE CUTTERS KIT SAT: CAGE CODE: DWG NO: REV C B: 07/04/6 646.400		
			SCALE: NONE SHEET 1 OF 5		